Helmholtz Research School on
Mechanisms and **I**nteractions
of **C**limate Change in **Mo**untain **R**egions

Policies of the Helmholtz Research School MICMoR

(as of February 22, 2013)

MICMoR Steering Committee

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1. Preamble

MICMoR (**M**echanisms and **I**nteractions of **C**limate Change in **Mo**untain **R**egions) is a Helmholtz Research School for PhD students coming from a background of physics, meteorology, chemistry, biology, geography, environmental science or related disciplines. It offers a structured, interdisciplinary graduate training programme focusing on climate change in mountain regions. MICMoR is a programme supporting the completion of a PhD at one of the German partner universities and institutions, following their PhD regulations. The present *Rules of Procedure* are designed to define the structure and framework of the MICMoR Research School and cover the general terms and conditions governing all acts and decisions.

2. Status

MICMoR is a joint project of the Karlsruhe Institute of Technology (KIT) and the involved partner institutions. MICMoR Research School is based at KIT's Institute of Meteorology and Climate Research, Atmospheric Environmental Research (IMK-IFU) in Garmisch-Partenkirchen. It is funded by the *Impuls- und Vernetzungsfonds* of the Helmholtz Association.

For the admission to doctoral studies within the MICMoR framework, the current PhD regulations of the faculties of the MICMoR partner universities are valid. Which PhD regulation is to be applied depends on the university the PhD student is enrolled at. These PhD regulations are not touched by the MICMoR programme.

3. Aims & Objectives

The objective of the MICMoR Research School is to prepare young scientists with a climate change focus to navigate successfully in a collaborative atmosphere-biosphere-pedo-/hydrosphere research environment. MICMoR fosters the acquisition of essential tools and skills for scientific excellence and the training of professional competencies. It offers various opportunities of exchange and international collaboration. Its programme will prepare PhD students in an optimal way for their later careers in research, economy and politics.

Important aims of the MICMoR Research School are:

- to foster interdisciplinary approaches through training of young scientists, both in a solid core expertise in one research field, and in the capability to work at interfaces of neighbouring disciplines
- to provide a scientific training programme (e.g., through Summer Schools, Technical Short Courses), both at KIT/IMK-IFU and partner institutions
- to promote PhD research on the TERENO-prealpine observatory
- to train PhD students in professional competencies (e.g., through Professional Skills Courses, Fellows' Retreats)
- to bring forward a reliable supervision and mentoring concept (e.g., through a Thesis Advisory Committee, Mentor Coaching)
- to promote supervision and leadership competencies of PhD students (e.g., through peer mentoring, Fellows' Retreats)

- to facilitate communication across partner institutions (e.g., through participation at Research Forum, Fellows' Retreat)
- to enhance internationality, i.e. scientific exchange, communication and cooperation between PhD students and international scientists in research and training (e.g., through travel grants to international conferences, research visits abroad, international visiting scientists, ‚Spitzenforscherwerkstatt')
- to promote high motivation and commitment of its fellows (e.g., through self-organised Fellows' Retreats)

MICMoR will pursue these aims within a general framework which will especially take care

- to establish an international and English-speaking graduate programme
- to ensure transparent selection criteria and quality-orientated recruitment for MICMoR Fellowships
- to involve PhD students in the planning of the MICMoR Graduate Programme (e.g., through a Graduate Representative in the Steering Committee)
- to ensure scientific excellence and observance of ethical principles in accordance with the recommendations of the DFG's Commission "Self-Regulation in Science" for safeguarding good scientific practice
- to ensure continuous evaluation and quality control of its Graduate Programme by independent experts
- to ensure a policy of equality in terms of gender, race, colour, descent, national or ethnic origin, religion or belief

4. Partners & Cooperations

4.1 Partner Institutions

KIT's Institute of Meteorology and Climate Research, Atmospheric Environmental Research (IMK-IFU) in Garmisch-Partenkirchen represents the host institute of the MICMoR Research School. MICMoR partner institutions are Technische Universität München (TUM), Ludwig-Maximilians-University Munich (LMU), Universities of Augsburg, Bayreuth and Würzburg, the German Aerospace Center (DLR) in Oberpfaffenhofen and the Helmholtz Center Munich. All partner institutions were nominated during the MICMoR application and founding phase and are listed in a member list with the Coordination Office (see Appendix A and http://www.micmor.kit.edu/partners).

MICMoR can associate new partner institutions upon application to the Coordination Office, provided that their research programme and field are relevant to the MICMoR Research School. The MICMoR Steering Committee decides upon their acceptance.

4.2 Members

MICMoR Members are academic teachers from the field of Climate Change Research with a focus on atmosphere-biosphere-pedo-/hydrosphere research, as well as other scientific

staff, especially those named in the Supervision Agreements as supervisors and mentors. They are ideally affiliated at MICMoR partner institutions and are all active and internationally recognized and renown scientists. All MICMoR Members are listed in a member list with the Coordination Office (see Appendix A and http://www.micmor.kit.edu/mentors-scientists).

Supervisors and mentors of MICMoR Fellows will automatically become MICMoR Members, even if not coming from a MICMoR partner institution. MICMoR can associate further scientists as far as their research programmes are relevant to MICMoR. The MICMoR Steering Committee decides upon their acceptance (application to Coordination Office).

4.3 MICMoR Fellows

PhD students accepted for a MICMoR Fellowship are called MICMoR Fellows; they can be either Resident or Associate Fellows. Resident Fellows are PhD students enrolled at a German university (ideally one of the MICMoR partner institutions), Associate Fellows are PhD students enrolled at an international university.

Resident Fellows participate in the MICMoR Graduate Programme (for the compulsory curriculum see 7.2.1.) and ideally carry out their PhD research at the TERENO-prealpine observatory. Ideally they are recruited from MICMoR partner institutions. Associate Fellows also participate in the MICMoR Graduate Programme, however, more flexibility is allowed with regard to their curriculum. Their PhD research is in close connection with the MICMoR research framework, i.e. climate change in mountain regions and research at interfaces, however, it is not carried out at the TERENO-prealpine observatory. The Steering Committee can decide upon exceptions.

4.4 Cooperations

MICMoR Fellows can also be registered with other thematically non-focused graduate programmes at their home institutions. Consequently, MICMoR will closely cooperate with partner institutions and universities, especially with respective graduate centers and programmes, such as e.g. the Helmholtz Graduate School for Climate and Environment (GRACE) and the Karlsruhe House of Young Scientists (KHYS) at KIT, the Graduate Center Weihenstephan (TUM GZW) at TUM and und the Graduate Center LMU. These cooperations are to use synergy effects and reduce redundancy if a fellow is a member of more than one programme. Currently, cooperation agreements between MICMoR and all partner institutions are well underway.

5. Organisation & Management

The management structure (Fig. 1) of MICMoR is composed of:

- a Management Board with Steering Committee and Coordination Office
- an Advisory Board with Selection Committee, External Advisory Panel and the Unit of Academic Controlling)
- the MICMoR Partners (with all partner institutions and scientists, the Core Team, and supervisors and mentors forming the Thesis Advisory Committee)
- the MICMoR Fellows

Partners and fellows are described in in 4.2 and 4.3, the Management Board and the Advisory Board will be described in the following.

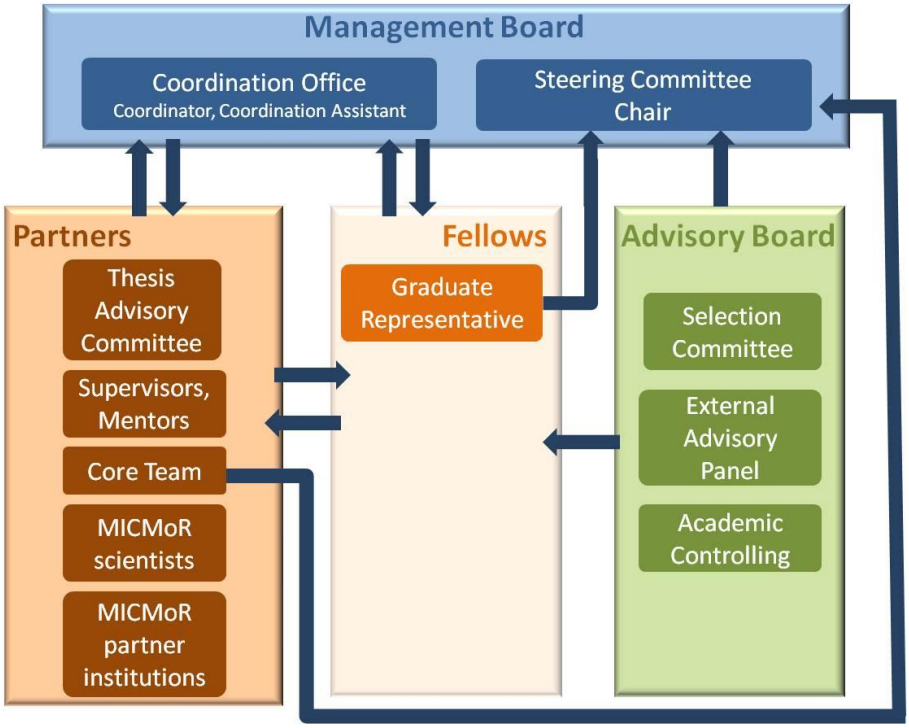

Fig. 1: Management Structure of the MICMoR Research School

5.1 Coordination Office

The Coordination Office is based at KIT/IMK-IFU in Garmisch-Partenkirchen and comprises the Coordinator and the Coordination Assistant. For the current staffing of the Coordination Office see Appendix B.

Tasks: The Coordination Office's task is the day-to-day coordination and management of all Research School relevant matters, the administration and distribution of financial resources and the strategic development and implementation of the training programme. It is responsible for the logistical and practical organisation of the application and recruitment procedure, for internal and external communication to fellows, partners and Helmholtz Association as well as for the MICMoR marketing. It takes care of coordination of fellowships and will especially support the MICMoR Fellows in all relevant matters such as, e.g., visa application, travel support etc. Finally, the Coordination Office takes care of the implementation of quality control measures within the MICMoR Programme.

All these responsibilities and activities are in agreement with decisions made by the Steering Committee. The Coordination Office supports the Steering Committee and the MICMoR Chair in all matters. It will prepare all meetings of the Steering and the Selection Committee. In agreement with the Chair the Coordination Office will report on all its activities to the Steering Committee.

All MICMoR correspondence should be addressed to the Coordination Office.

5.2 Steering Committee

The Steering Committee consists of the MICMoR Chair, representatives of partner institutions and a Graduate Representative. For the current members of the SC see Appendix B.

The Steering Committee constitutes itself every 3 years. The previous Committee determines the new Committee under the condition that it has to consist of representatives of partner institutions. Members of the Steering Committee are professors, possibly with teaching chair, who can thereby warrant continuity and commitment. Members of the Steering Committee can be reelected. The Graduate Representative is elected annually by the MICMoR Fellows for the period of one year (can be re-elected) and represents the fellows and their interests towards the Steering Committee and the Coordination Office.

The Steering Committee meets at least twice a year and will be convened by the Coordination Office and headed by the MICMoR Chair. The Coordination Office shall participate in the Steering Committee meetings in an advisory capacity (without the right to vote). The Coordination Office will report on all activities of the Coordination Office and the Research School. In case members of the Steering Committee cannot participate in the meeting, they can appoint a representative. In addition to decisions approved at meetings they can also be approved by the Steering Committee by circular resolution (e.g. via email). The simple majority of the votes will suffice for a resolution. All resolutions and decisions of the Steering Committee will be recorded in a protocol which will be sent to the members of the Steering Committee latest 2 weeks after the meeting.

Tasks: All MICMoR relevant questions with regard to definition of programme objectives, financial and structural planning of the graduate programme and recruiting and selection procedure will be decided upon by the Steering Committee. The Steering Committee also decides upon financial support for MICMoR Fellows with regard to, e.g., participation at courses, conferences, research visits abroad. The MICMoR Chair represents the Research School and has the task of supervising the management processes at the Coordination Office. The Chair acts in close cooperation with the Coordination and the Steering Committee which he heads with regard to implementation of decisions and internal communication.

For specific tasks the Steering Committee will be extended to form the Core Team and the Selection Committee by including further MICMoR Scientists. The MICMoR Core Team currently consists of 10 scientists from all MICMoR partner institutions and research disciplines (for the current members of the Core Team see Appendix B). It supports and advises the Steering Committee and develops the thematic orientation of the scientific programme. For a more detailed description of the Selection Committee and its responsibilities see the following.

5.3 Selection Committee

The Selection Committee consists of the Steering Committee without Graduate Representative, and of 3 additional appointees from partner institutions (for the current Selection Committee see Appendix B).

The Selection Committee holds a meeting once a year, usually end of March following the application phase. In case one of the members of the Selection Committee cannot participate at the meeting, it is not possible to designate a representative. This is due to the fact

that confidential information of applicants will be discussed. However, it is possible to participate via phone or send written comments; similarly votes can be transferred to another member participating in the meeting.

Tasks: All application documents are collected and prepared by the Coordination Office for examination through the Selection Committee. The responsibility of the Selection Committee is the evaluation and selection of MICMoR Fellows. For a decision a simple majority of the members will suffice. The Coordination Office shall participate in the Selection Committee meetings in an advisory capacity.

5.4 External Advisory Panel

This panel consists of representatives (faculty and administrators) from non-partner-institutions, e.g., head of other graduate schools, ideally from the same research field as MICMoR. For the current External Advisory Panel see Appendix B. The committee meets once a year.

Task: The External Advisory Panels task is to provide advice to the MICMoR Steering Committee on the future direction of the Research School. The External Advisory Panel only holds an advisory capacity but does not assume responsibility or take an assessment role. It takes care of networking with other institutions and of qualitative control.

5.5 Academic Controlling

An independent external expert appointed by the Steering Committee will take care of academic controlling by performing an evaluation of the MICMoR Research School. This will comprise data collection, analysis and evaluation of: graduate programme, research focus and its interdisciplinary approach, supervision and mentoring concept, recruitment, networking and cooperation between MICMoR and external partners, and whether aims set by the MICMoR Research School in its original proposal have been met. Consequently, the external expert will report back to the Steering Committee and advice with regard to the future orientation and improvement of the Research School.

6. MICMoR Fellowships

MICMoR Research School offers a structured graduate programme for approximately 24 doctoral candidates with a PhD topic in the context of the MICMoR research focus. MICMoR Fellows accepted for a MICMoR Fellowship receive supplemental funding for a funding period of up to three years; this period corresponds to the intended duration of the PhD thesis. MICMoR Fellowships provide supplemental support, i.e. MICMoR does not grant base funding (e.g., stipends or personal salaries). When applying for a MICMoR Fellowship, the candidate's base funding must already be secured. With an overall funding period for the Research School of 6 years, the fellowships granted come in 4 cohorts of approximately 6 doctoral candidates each (from year 1 to 4).

The Coordination Office can informally counsel PhD students with regard to base funding through potential funding organisations, however, it cannot be a funding agency or promise success in securing funding. In case that a promising MICMoR applicant does not yet have the confirmation of base funding for his PhD (provided either by his supervisor or by a funding organization), the Coordination Office can provide a letter of support, e.g., to the respective funding organization to which a funding proposal has been submitted; however, MICMoR cannot fully commit at this point to accept the applicant as a MICMoR Fellow.

When accepting the MICMoR Fellowship, the MICMoR fellows agree to participate in the Research School's activities (for compulsory and optional activities see Tab. 1), to regularly report on the progress of their PhD work (e.g., at meetings with the personal Thesis Advisory Committee, at the Research Forum) and to immediately inform the main supervisor and the Coordination Office upon changes or termination of the PhD. If a MICMoR Fellow does not cover the compulsory curriculum (see 7.2.1.), the Steering Committee will decide on a case-by-case basis upon certification. In case of evident negligence the certificate will not be awarded.

The Fellows need to report all participation in conferences and external courses as well as all research stays abroad to the Coordination Office. They also need to list MICMoR Research School as sponsor in all relevant presentations and publications.

In the following the MICMoR Graduate Programme will be described in more detail.

7. MICMoR Graduate Programme

7.1 Qualification Concept

Important columns of the MICMoR Qualification Concept are interdisciplinarity (research at interfaces), internationality, the X^3 Strategy and the formation of a 'MICMoR Community'.

Interdisciplinarity: The development of an interdisciplinary qualification shall be accomplished through the orientation of all MICMoR PhD topics at the interfaces of atmosphere-biosphere-pedo-/hydrosphere research, as well as through a Thesis Advisory Committee with mentors from different disciplines. In the compulsory Summer Schools the fellows are imparted with broad, interdisciplinary knowledge.

Internationality: The international orientation in research as well as in training is explicitly stimulated, e.g., by supporting the fellows participation in international conferences or in completing research stays abroad. The international approach fosters the qualification of the fellows as well as their networking within the scientific community.

X^3 Strategy: MICMoR will follow the X^3 Strategy '*Exposure-Exchange-Experience*' to promote the highest possible level of excellence in its fellows and scientists. By taking part in on-going research projects, the fellows constantly extend their knowledge through practical work (*Exposure*: learning-by doing). The network will serve as a peer-mentor network where the fellows will frequently find themselves in teaching and consulting roles, e.g., advanced fellows will assist members of a younger cohort (*Exchange*: learning by teaching). Through exchange and discussion with experienced scientists (e.g., international visiting scientists) fellows gain deeper insight into science (*Experience*: learning by discussing).

'MICMoR Community': MICMoR pursues the establishment of an international community of scientists in climate change research. To achieve this, MICMoR encourages, e.g., the establishment of networks through regular exchange forums for all MICMoR Members.

7.2 Programme Elements

7.2.1 For MICMoR Fellows

To achieve its objectives MICMoR has various training tools at its disposal. A MICMoR Fellowship for three years comprises the specific funding of participation at programme elements of the MICMoR Graduate Programme (see Tab. 1). Some graduate programme elements are compulsory for MICMoR Fellows (e.g., Summer Schools, Technical Short Courses), whereas others are optional, but highly encouraged (e.g., conference participation, Research Stay abroad). The Fellows will advise with their personal Thesis Advisory Committee on their individual curriculum (see 9.1), which will be submitted in the Supervision Agreement.

If the duration of a fellow's PhD work exceeds a period of three years, the doctoral candidate still remains a MICMoR Fellow. However, he/she will not receive any additional funding.

Tab. 1: MICMoR programme elements for MICMoR Fellows

Programme element	Content	Frequency, Duration	Compulsory or optional during 3-year-Fellowship
Scientific Training			
Summer Schools	3 Summer Schools: 1. Climate-Earth System Science 2. Observation and Experimental Methods 3. Process- and Regional Modelling	1 per year, 1-2 weeks	all 3 Summer Schools compulsory
Technical Short Courses	broad range of possible topics, adapted to the fellows' needs	2-3 per year, each up to 1 week	min. 2 Technical Short Courses compulsory, external courses can be approved by Steering Committee
Professional Skills Training			
Professional Skills Courses	3 courses organised by Helmholtz Association, run by Imperial College (UK): 1. Research Skills Development (for 1st year PhD students) 2. Presentation & Communication (for 2nd year PhD students) 3. Career & Leadership (for 3rd year PhD students)	all 3 courses offered each year, 2-3 days each	all 3 courses compulsory, external courses can be approved

Mentoring			
Supervision Agreement	signed agreement between fellows and Thesis Advisory Committee (following the MICMoR template), includes outline of research project, tentative MICMoR curriculum	completion within 4 months after starting the fellowship	submission to Coordination Office compulsory
Thesis Advisory Committee Meetings	TAC meets with fellow, discussion of research plan and progress report	2 per year	meetings and submission of TAC reports to CO compulsory, all TAC members must be present at 1 of the 2 meetings per year
MICMoR Community & Networking			
Research Forum	Meetings of MICMoR Fellows and scientists, progress reports of Fellows with discussion of PhD work and review, invited keynotes, exchange	2 per year, 1 day each	regular participation compulsory, 1 presentation per fellow per year compulsory, RF can also be hosted at partner institutions, video conference possible
Fellows' Retreat	self-organised meetings of Fellows (all cohorts), work on overarching topic such as, e.g., ethics in science, mentoring, etc.; general exchange and discussion	1 per year up to 2-3 days	compulsory
'Spitzenforscherwerkstatt'	MICMoR Fellows meet international scientists at Schneefernerhaus / Mount Zugspitze	1-2 days	optional
International Exchange			
Conferences	active participation at international conferences (i.e. with oral or poster presentation)		Optional, but encouraged
Research stay abroad	Research stay at international institutions and cooperation partners abroad		Optional, but encouraged

The compulsory MICMoR Curriculum during a 3-year fellowship covers:

- all 3 Summer Schools
- a minimum of 2 Technical Short Courses
- 3 Professional Skills Courses
- submission of Supervision Agreement
- bi-annual Thesis Advisory Committee meetings
- regular attendance at Research Forum
- annual Fellows' Retreat

Optional programme elements are:

- ‚Spitzenforscherwerkstatt'
- Conferences
- Research stay abroad

The compulsory MICMoR Curriculum can be reduced, e.g., if the fellowship duration is less than three years or if the fellow attends external (i.e. non-MICMoR) courses. The Steering Committee decides upon curriculum reduction on a case-by-case basis. For Associate Fellows a more flexible arrangement of the compulsory MICMoR Curriculum is possible.

The Steering Committee will decide upon all exceptions to the existing Graduate Programme.

7.2.2 For MICMoR Scientists, Supervisors & Mentors

MICMoR Scientists can get involved in the Research School in many ways: They can shape the Research School's orientation by serving in one of the MICMoR committees. They can be main supervisors and mentors of MICMoR Fellows. They can organise and run MICMoR programme elements (e.g., Technical Short Courses, Research Forum), be lecturer in one of the courses and participate in the Research Forum. For these activities, MICMoR Scientists can apply for funds (e.g., travel funds, lecturer honorarium, funds for organizing courses and events). With becoming a MICMoR Scientist, they agree to commit themselves and to be active players in the MICMoR Research School. To provide the MICMoR Fellows with a reliable network of MICMoR Scientists, with ample feedback on their PhD research and with trusted mentoring, we expect MICMoR supervisors and mentors to participate regularly in the Thesis Advisory Committee Meetings and the Research Forum (see Tab. 2).

Tab. 2: MICMoR Programme elements for MICMoR supervisors and mentors

Programme element	Content	Frequency, Duration	Task
Mentoring			
Supervision Agreement	signed agreement between fellows and their TAC, includes outline of research project planned and tentative MICMoR Curriculum	completed within 4 months of fellowship acceptance	Submission of Supervision Agreement to Coordination Office
Thesis Advisory Committee Meeting	Thesis Advisory Committee meets with fellows to discuss the fellow's research plan and progress report	2 per year	Submission of TAC meeting reports to Coordination Office, all TAC members should be present at 1 of 2 annual meetings
MICMoR Community & Networking			
Research Forum	Meetings of MICMoR Fellows and scientists, progress reports of Fellows, discussion and review of PhD work, invited keynotes, exchange	2 per year 1 day each	Regular attendance, Forum hosted at IMK-IFU or partner institutions, video conference possible

For MICMoR Scientists we offer professional mentor coaching (in groups and single) with the aim of supporting and training them in their role as supervisors and mentors. During coaching MICMoR Scientists will reflect their mentoring experience, evaluate personal responsibil-

ities in the mentoring process as well as possibilities and limitations of mentoring. Furthermore, their competencies in conflict management and gender specific topics will be trained.

7.2.3 For International Scientists

International scientists with their research in the context of the MICMoR research framework can apply to become a MICMoR Visiting Scientist. Their research stay at KIT or at one of the MICMoR partner institutions can be funded for up to 6 months (minimum duration of 2 months for effective interaction with MICMoR community). The MICMoR Visiting Scientist will be responsible for the development and organisation of MICMoR programme elements (e.g., Summer School) and be also mentor to the MICMoR Fellows.

Scientists can apply to become a MICMoR Visiting Scientist or can be proposed by MICMoR Scientists. Required application documents to be sent to the Coordination Office comprise: 1. CV with list of publications and teaching experience, 2. Motivation Letter (with statement of how the applicants and their research fields fit into the MICMoR framework), 3. Outline of potential courses the applicant may run as a Visiting Scientist, 4. Tentative timetable for stay at IMK-IFU or partner institution.

7.2.4 For External PhD Students

External (non-MICMoR) PhD students can participate in MICMoR courses as well, e.g., at Summer Schools and Technical Short Courses, if free places are available. However, external PhD students do not receive financial MICMoR support. For participation in MICMoR courses, a formal application must be submitted to the Coordination Office with a Motivation Letter, a CV and a Recommendation Letter of the supervisor.

7.3 Funding and Support through MICMoR

7.3.1 Funding of MICMoR Courses

For participation in MICMoR courses such as, e.g., Summer Schools, Technical Short Courses Professional Skills Courses and Research Forums, MICMoR Fellows just need to register generally binding at the Coordination Office. No additional application documents are needed.

After successful participation the fellows need to submit the travel refund form (KIT template) together with all required documents (invoices of travel costs, accomodation etc.) to the Coordination Office.

7.3.2 Funding of External Courses

If Fellows want to participate in an external (non-MICMoR) training course and want MICMoR to fund this course (i.e. fees, travel costs), they have to apply informally at the Coordination Office submitting the following information and documents:

- short motivation statement for participation in the external course
- title of course, with link to website, date, location, organisers
- official document of course acceptance (may be handed in later)
- tentative budget with course fees, travel costs, accomodation, also whether additional funding exists
- recommendation letter of supervisor stressing the importance of the course for the fellows PhD work

The Steering Committee will decide upon financial coverage of course participation on a case-by-case-basis.

After participation the fellows need to submit the travel refund form (KIT template) together with all required documents (invoices of travel costs, accomodation etc.) as well as a short report to the Coordination Office.

7.3.3 Support of Material and Research Costs

Fellows can also apply for funding for material and research costs related to their PhD. For this, all relevant information needs to be submitted to the Coordination Office (i.e., motivation statement, budget). The Steering Committee decides on the application in a case-by-case basis and according to financial availability.

7.3.4 Funding of Conferences

MICMoR offers to its fellows financial support for participation in international conferences, i.e. ideally rather large conferences than small, specialised workshops. Requirement for financial support is for the fellows to play an active role at the conference, i.e. by either giving an oral presentation (as first author) or a poster presentation.

For conference funding fellows have to apply informally at the Coordination Office submitting the following information and documents (as PDF file or hard copy):

- short motivation statement for participation
- title of conference with link to website, date, location, organisers
- official acceptance letter for oral or poster presentation with abstract (may be handed in later)
- tentative budget with conference fees, travel costs, also whether additional funding exists
- recommendation letter of supervisor stressing the importance of the conference for the fellows PhD work

The Steering Committee will decide upon financial coverage of the conference participation on case-by-case-basis. As a guideline MICMoR allows for 2 typical 1-week international conferences per fellow over the MICMoR fellowship period.

After successful participation in a conference, the fellows need to submit the travel refund form (KIT template) together with all required documents (invoices of travel costs, accomodation etc.) as well as a short report to the Coordination Office. Any awards received (e.g., “Best poster presentation”) must be reported to the Coordination Office.

7.3.5 Funding of Research Stay Abroad

MICMoR also offers to its fellows financial support for a research stay abroad. As with conference participation fellows have to apply informally at the Coordination Office (PDF file or copy) submitting the following information and documents:

- motivation statement for research stay abroad (i.e. how the stay fits into the PhD work, reason for choosing specific cooperation partner and host institute)
- intended time frame of research stay with time and work plan
- official acceptance letter of host institute / cooperation partner (may be handed in later)
- tentative budget with travel costs, host contribution, also whether additional funding exists
- recommendation letter of supervisor stressing the importance of the research visit for the fellows PhD work

The Steering Committee will decide upon financial coverage of the research stay abroad on a case-by-case-basis.

After successful completion of a research stay abroad, the fellows need to submit the travel refund form (KIT template) together with all required documents (invoices of travel costs, accomodation etc.) as well as a report to the Coordination Office.

7.4 Accreditation of External Courses

MICMoR can approve external (i.e. non-MICMoR) courses in which MICMoR Fellows successfully participate. The Steering Committee will decide upon accreditation and whether participation can be funded through MICMoR (see 7.3.2.). Fellows having attended relevant courses prior to their acceptance to the MICMoR Research School can apply for their subsequent accreditation. However, a subsequent funding is not possible.

Participation in external courses can only cover part of the MICMoR Curriculum, external courses cannot cover the major part of it. This is due to the MICMoR Concept that in addition to scientific training, the building of a 'MICMoR Community' is an important element of the Research School. Consequently, Summer Schools are seen as compulsory elements for all fellows, however, exceptions are possible.

In general, MICMoR does not apply any credit system for its programme elements. However, on request (e.g., from external students) credits according to European Credit regulations (ECTS) can be rewarded for MICMoR courses.

7.5 Certificates

MICMoR Fellows will complete and submit their dissertation at KIT, at one of the partner institutions or at an international university. Here, also the PhD degree will be awarded. The MICMoR Graduate Programme is only an accompanying PhD programme. After the successful completion of both, the PhD thesis at the respective partner university and the MICMoR Research School (i.e. participation in the compulsory MICMoR Curriculum), the fellows will be awarded a MICMoR Certificate listing all training elements the fellows have participated

in. In case the MICMoR Fellows are enrolled in additional graduate programmes at their home universities, the Steering Committee will decide upon the approval and listing of certain course elements in the certificate in a case-by-case-basis to ensure that one course is not approved twice.

8. Application & Recruitment Procedure

Application for MICMoR Fellowships is possible once a year from 2012 until 2015, usually at the beginning of the year. Applications need to be submitted online (www.micmor.kit.edu) following explicite application guidelines (see www.micmor.kit.edu/How to apply/).

8.1 Application Criteria & Requirements

The primary criteria for a successful application is the applicants scientific excellence as shown in the applicant's marks, but also in the applicants PhD concept and the given motivation to become a MICMoR fellow as stated in the Motivation Letter. Furthermore, only applicants with complete application documents are considered. Moreover, MICMoR aims for an international and diverse community of participants and follows a policy of equality in terms of gender, race, colour, descent, national or ethnic origin, religion or belief. To strike a balance between these objectives and to select the most suitable applicants is the responsibility of the Selection Committee.

For a successful application applicants need to:

- have a high level of motivation and interest in climate change research, together with a Master's degree (or equivalent) in any discipline related to ecosystem and climate processes (including Physics, Biology, Chemistry, Geography, Environmental Sciences etc.)
- have a PhD topic in the context of the MCMoR research, i.e. at interfaces of biosphere-atmosphere-pedo-/hydrosphere research in mountain regions. For the Resident Fellows part of the research is ideally carried out at the TERENO observatory.
- be accepted as a PhD student at a research university as documented by an Acceptance Letter from the faculty. For Resident Fellows, the university must be in Germany, Associate Fellows are ideally enrolled at a research university abroad.
- have secured PhD funding. MICMoR Fellows need to have the base costs of their doctoral research projects (i.e. personal salaries from partner institution or stipends) secured and administered through their respective home institutions (ideally for 3 years). To make sure that PhD students receiving a salary at their home institution on the basis of a fixed-term contract (e.g., < 2 years) will not be excluded from the application, a letter from the supervisor should be submitted. This letter needs to credibly demonstrate the chances of the applicant to obtain base funding during the whole PhD duration. In the context of securing base funding, the Steering Committee can decide upon duly justified exceptions.
- identify one PhD supervisor and two mentors for the personal Thesis Advisory Committee. The identification of a TAC by the applicant should be successfully completed at the time of the Selection Committees meeting. This shall not exclude a later mentor change.

- have good proficiency in English, as English is the working language of the MICMoR Research School.

8.2 Application Procedure

The online application procedure includes a registration period and an application period. During the registration period applicants need to register online on www.micmor.kit.edu by providing first information (personal details, academic career) in a Registration Form and submitting it online. The time between registration and actual application can be used by the applicant to further the PhD concept, establish contacts to a supervisor, clarify the question of basic funding, and identify 2 mentors for the personal Thesis Advisory Committee. During the actual application period (lasting 4 weeks longer than the registration period) the registered applicant needs to submit all required application documents. They need to include:

- application form with information on the planned PhD project
- Curriculum Vitae (max. 3 pages; with education, academic history, research experience, awards & scholarships, publications)
- certificates (Bachelor, Diploma/Master)
- Letter of Motivation (1-2 pages; including the applicant's motivation to become a MICMoR Fellow, a description of academic and career plans and scientific interests, especially with regard to the MICMoR framework, an outline of the underlying research project)
- Letter of Acceptance from the department or faculty of the applicant's home institution, stating that the applicant is enrolled as a PhD student

After submission of these application documents the applicant has to make sure that the following required documents are sent directly to the Coordination Office incoming latest by the application deadline:

- Letter of Recommendation from the PhD supervisor (1-2 pages; with statement why the supervisor recommends the applicant, how the PhD topic will fit into the MICMoR overall framework and the supervisor's research group, information on PhD funding)
- Letter of Recommendation from a second referee (1-2 pages; second referee can be, e.g., Master's supervisor or other senior scientist)

Only complete applications submitted by the application deadline will be considered. The Coordination Office collects and prepares these applications for examination through the Selection Committee who decides upon acceptance of the applicants. The MICMoR Selection Committee reserves the right to carry out interviews with the applicants (via video or telephone conference). The final decision will be made by the Selection Committee and soon after the applicants will be notified whether they have been accepted as a MICMoR Fellow. The MICMoR Fellowships will officially start a few weeks after the Selection Committee's decision.

9. Mentoring

9.1 Thesis Advisory Committee

The individual and subject-specific mentoring of each doctoral candidate is assured through the main supervisor, a MICMoR Scientist. Furthermore, the PhD work will be accompanied by a personal Thesis Advisory Committee (TAC). This committee consists of the above mentioned main supervisor and of two additional mentors. When applying for a MICMoR Fellowship, the applicant must suggest these two mentors. Mentors can be MICMoR Scientists; all MICMoR Scientists are listed in a member list with the Coordination Office (see Appendix A and http://www.micmor.kit.edu/mentors-scientists). However, mentors can also be non-MICMoR scientists. By the time the Selection Committee meets to decide upon acceptance of an applicant, the personal TAC has to be defined and the mentors should already have been contacted by the fellows. A later mentor change is possible.

The research expertise of the mentors should reflect the research spectrum of the PhD thesis. Ideally, the mentors come from different disciplines (atmosphere, biosphere, pedo-/hydrosphere) and are affiliated to different institutions, one mentor possibly to an international institution. The fellows will submit their PhD theses at the universities of their main supervisors.

The function of the TAC is the permanent supervision of the PhD work. The first TAC meeting with the MICMoR Fellow should take place no later than 3 months after the MICMoR Fellowship has started. At this meeting, the fellow should outline and discuss the respective PhD project with title, objectives, time and work plan with the TAC. All this information will be included in the Supervision Agreement (see 9.2), signed by the Fellow and the TAC and submitted to the Coordination Office no later than 4 months after the fellowship has started. Further meetings between TAC and fellows take place at least twice a year. In these meetings, the fellows will present a brief summary as to the status of their work. The progress of the fellows work will be evaluated, further steps discussed and a report submitted to the Coordination Office.

In the context of the Research Forum all MICMoR Fellows should put their dissertations and their research results up for discussion once a year.

The Supervision Agreement, the protocols of the bi-annual TAC meetings as well as all corresponding documents have to be submitted to the MICMoR Coordination Office. If the progress of the PhD thesis is reviewed as insufficient, the Steering Committee can reduce the granted funding period.

In case of mentoring problems that cannot be resolved in the TAC, fellows concerned can contact the MICMoR Coordination Office, which will try to find an adequate, independent ombudsperson. In case of serious problems in a mentor-mentee-relationship, a mentor change is possible.

9.2. Supervision Agreement

The rights and duties of the MICMoR Fellows, their supervisors and mentors of the personal TAC, during the PhD phase and in the framework of the MICMoR Fellowship will be settled in a Supervision Agreement. The Supervision Agreement signed by all parties involved has to be

submitted to the Coordination Office no later than 4 months after start of the fellowship. The Supervision Agreement will not be described here in detail.

10. Quality Control

Evaluation and quality control are vital for research and teaching. Therefore, MICMoR will closely cooperate with KHYS, the KIT's Karlsruhe House of Young Scientists, and representatives of other graduate programmes (External Advisory Board), and will engage and authorize an external and independent expert (Academic Controlling) to develop and implement quality control measures for the MICMoR Graduate Programme, its aims and concepts.

11. Amendments & Derogations

Changes to the present *Rules of Procedure* must be approved by the Steering Committee. They can be adopted by a single majority of the members of the Steering Committee. Changes in personnel do not require amendments in the *Rules of Procedure*, they only have to be adjusted accordingly.

Where a procedural question arises that is not clearly covered by the present *Rules of Procedure*, the Steering Committee will decide upon it, either in a Steering Committee meeting or through email circulation. In justified cases, the Steering Committee can decide upon exceptions to the *Rules of Procedure* through a simple majority, however, these alterations are required to be in written form.

12. Entry into Force

The present *Rules of Procedure* entered into force through the approval of the Steering Committee on February 17, 2012. The modifications and amendments of the present version were approved by the Steering Committee on March 22, 2013.

13.Appendix

A. MICMoR Member directory: Partner institutions and scientists (as of 11 July 2013).

Karlsruhe Institute of Technology (KIT), IMK-IFU, Garmisch-Partenkirchen

Prof. Dr. Hans Peter Schmid
Prof. Dr. Klaus Butterbach-Bahl
Prof. Dr. Hans Papen
PD Dr. Ralf Kiese
Prof. Dr. Almut Arneth
Dr. Peter Werle
Dr. Rainer Steinbrecher
Dr. Matthias Mauder
Prof. Dr. Harald Kunstmann
Dr. Patrick Laux
Dr. Peter Suppan
Prof. Dr. Klaus Schäfer
Dr. habil. Rüdiger Grote
Dr. Eugenio Díaz-Pinés
Dr. Michael Dannenmann

Technische Universität München (TUM)

Prof. Dr. Anton Fischer
Prof. Dr. Ingrid Kögel-Knabner
Prof. Dr. Johannes Kollmann
Prof. Dr. Reiner Matyssek
Prof. Dr. Annette Menzel
Dr. Michael Leuchner
Prof. Dr. Hans Peter Schmid
Prof. Dr. Jörg Völkel
Prof. Dr. Hans Schnyder
Prof. Dr. Urs Schmidhalter

Ludwig-Maximilians-University Munich (LMU)

Prof. Dr. Ralf Ludwig
Prof. Dr. Wolfram Mauser
Prof. Dr. Karsten Schulz
Prof. Dr. George Craig
Prof. Dr. Bernhard Mayer

University of Augsburg (UNA)

Prof. Dr. Jucundus Jacobeit
Prof. Dr. Harald Kunstmann
Prof. Dr. Karl-Friedrich Wetzel
Dr. Andreas Philipp
Dr. Christoph Beck

University of Würzburg (UW)

Prof. Dr. Stefan Dech
Prof. Dr. Christopher Conrad

University of Bayreuth (UB)

Prof. Dr. Carl Beierkuhnlein
Prof. Dr. Thomas Foken
Prof. Dr. Andreas Held
Prof. Dr. Anke Jentsch
Prof. Dr. Björn Reineking

German Aerospace Center (DLR), Oberpfaffenhofen

Prof. Dr. Stefan Dech
Prof. Dr. Michael Bittner
Dr. Doris Klein
Andreas Müller
Prof. Dr. Ulrich Schumann
Prof. Dr. Martin Dameris
Dr. Martin Hagen
Dr. Patrick Jöckel
Dr. Hans Schlager
Prof. Dr. Irena Hajnsek
Prof. Dr. Alberto Moreira

Helmholtz Zentrum München (HMGU)

Prof. Dr. Jean-Charles Munch
Dr. habil. Karin Pritsch
PD Dr. Eckart Priesack
Dr. Alexandra Schneider

Philipps-University Marburg

Prof. Dr. Jörg Bendix
Dr. Katja Trachte

University of Freiburg
Prof. Dr. Heinz Rennenberg

Northumbria University, Newcastle, United Kingdom
Dr. Nick Rutter

King's College London, United Kingdom
Prof. Dr. Martin Williams

University of Ostrava, Czech Republic
Dr. Vladimir Spunda

Academy of Sciences of the Czech Republic
Dr. Pavel Sedlak

Ghent University, Belgium
Prof. Dr. Pascal Boeckx

Universidad Politécnica de Madrid, Spain
Dr. Agustín Rubio Sánchez

Research Institute of Organic Agriculture FiBL, Frick, Switzerland
Dr. Andreas Gattinger

B. Directory of MICMoR Coordination Office and Management Committees (as of 11 July 2013)

Coordination Office:

Coordinator: Dr. Bärbel Elija Bleher, KIT/IMK-IFU
Coordination Assistant: Petra Guppenberger, KIT/IMK-IFU

Steering Committee:

Prof. Dr. Hans Peter Schmid (MICMoR Chair), KIT/IMK-IFU
Prof. Dr. Annette Menzel, TUM
Prof. Dr. Bernhard Mayer, LMU
Prof. Dr. Jucundus Jacobeit, University of Augsburg
PhD cand. Stefan Härer (Graduate Representative), LMU

Selection Committee:

Prof. Dr. Ralf Ludwig (Chair Selection Committee), LMU
Prof. Dr. Hans Peter Schmid, KIT/IMK-IFU
Prof. Dr. Harald Kunstmann, KIT/IMK-IFU
Prof. Dr. Annette Menzel, TUM
Prof. Dr. Bernhard Mayer, LMU
Prof. Dr. Jucundus Jacobeit, University of Augsburg

Core Team:

Prof. Dr. Hans Peter Schmid (MICMoR Chair), KIT/IMK-IFU
Prof. Dr. Harald Kunstmann, KIT/IMK-IFU
Prof. Dr. Hans Schnyder, TUM
Prof. Dr. Annette Menzel, TUM
Prof. Dr. Anton Fischer, TUM
Prof. Dr. Bernhard Mayer, LMU
Prof. Dr. Ralf Ludwig, LMU
Prof. Dr. Jucundus Jacobeit, University of Augsburg
Prof. Dr. Christopher Conrad, University Würzburg
Prof. Dr. Jean-Charles Munch, Helmholtz Center Munich